

I. Preliminary Project Information

County: <u>Knox</u>	Item Number: <u>11-8712.00 &amp; 11-8713.00</u>
Route Number(s): <u>KY 459</u>	Road Name: <u>Daniel Boone Drive</u>
Program Number: <u>8756401D &amp; 8756301D</u>	UPN: <u>FD04 061 0459 4-5 &amp; FD04 061 0459 3-4</u>
Federal Project Number: <u>N/A</u>	Type of Work: <u>Spot Improvements</u>
2012 Highway Plan Project Description:	<u>Bridge Replacement</u>

Spot improvements along Daniel Boone Drive (KY 459) between MP 3.0 and MP 5.0 to raise roadway above floodplain elevation of 971.0 ft & replacement of existing bridge at MP 4.595.

Beginning MP: <u>3.000</u>	Ending MP: <u>5.000 Miles</u>	Project Length: <u>2.000 Miles</u>
Terrain: <u>Rolling</u>		
Functional Classification: <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural and <u>Collector</u>		In TIP?: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
State Classification: <input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary		Truck Classification: <u>A</u>
Route is on: <input type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Extended Weight		Truck %: <u>10.4%</u>
MPO Area: <u>Not Applicable</u>		ADT (2011): <u>130</u>
Access Control: <input checked="" type="checkbox"/> None <input type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partially Controlled		Spacing: <u>N/A</u>
Median Type: <input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (type):		
Existing Bike Accommodations: <u>None</u>		Pedestrian: <input type="checkbox"/> Sidewalk
Posted Speed: <u>35 MPH</u>		Design Speed: <u>35 MPH</u>
Existing Roadway Plans available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Year of Plans: <u>1949</u>	
Traffic Forecast Requested? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date: <a href="#">Click here to enter a date.</a>	
Mapping/Survey Requested? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date: <u>9/3/2013</u> Type: <u>Conventional Survey</u>	
Existing Geotech Available? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Detour Length: <u>N/A</u>		
Project Notes/Design Exceptions?		

N/A

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 MP 3-5 along KY 459

<b>Roadway Data:</b>	<b>EXISTING</b>	<b>COMMON GEOMETRIC PRACTICES</b>	<b>Bridge No.</b>	<b>061B00071N</b>
No. of Lanes	2	2	Sufficiency Rating	78
Lane Width	9'	9'-12'	Total Length	28
Shoulder Width	2'	2'	Width, curb to curb	20.5
Max. Superelevation**	4.0%		Span Lengths	1
Minimum Radius**	218'	371'	Year Built	1975
Maximum Grade	8.4%		Posted Weight Limit	
Minimum Sight Dist.			Structurally Deficient?	No
Sidewalk Width(urban)	N/A	N/A	Functionally Obsolete?	Yes
Clear-zone***			Existing Bridge Type	Prestressed Concreted Box Beam

**II. Project Purpose and Need**

**A. Legislation**

In April 2012, the General Assembly scheduled SPP funds for 11-8712.00 and 11-8713.00.

<b>Funding</b>	<b>Phase</b>	<b>Year</b>	<b>11-8712.00</b>	<b>11-8713.00</b>
SPP	Design	2013	\$200,000	\$200,00
SPP	Right-Of-Way	N/A	N/A	N/A
SPP	Utilities	N/A	N/A	N/A
SPP	Construction		\$1,500,000	\$700,000

**B. Project Status**

Design funds were authorized for 11-8712.00 and 11-8713.00 on January 14, 2013. A survey of the existing roadway profile has been completed.

**C. System Linkage**

Daniel Boone Drive (KY 459) is a two-lane rural minor collector connection between KY 11 in Barbourville and KY 6 near Dishman Springs. It primarily serves the residents along the route. This route could serve as a detour for KY 6 in the instance of any closures between KY 11 and the KY 459 junction on KY 6.

**F. Modal Interrelationships**

The only mode of transportation along the length of the project is vehicular traffic. There are no intermodal interactions with pedestrians, railroads, ferries, river ports, or bicycle routes.

**F. Transportation Demand**

The current Average Daily Traffic (ADT) is 130 vehicles per day.

**G. Capacity**

This section of KY 459 has a relatively low Average Daily Traffic. It primarily serves the residents along the route. The current roadway capacity should be sufficient to satisfy future traffic needs.

**H. Safety**

This section of KY 459 frequently experience overtopping of the roadway during heavy rainfall events. Representatives from the Transportations Cabinet conducted interviews with the residents in the area and concluded that this occurs approximately

**I. Roadway Deficiencies**

Portions of the roadway along this section lie below the 2-year floodplain elevation of 971.0 feet. The following sections are below that desired elevation: MP 3.00-3.19, MP 3.59-3.76, MP 3.85-4.00, MP 4.14-4.22, MP 4.39-4.46, MP 4.51-4.77. A total of 0.92 miles (4,858') of the roadway lies below the floodplain elevation as well as the bridge over Bull Run Creek at MP 4.595.

**J. Draft Purpose and Need Statement**

The purpose of the proposed spot improvements is to raise the sections of roadway described in the previous section above the 2-year floodplain elevation of 971.0 feet. This will include building a new bridge either in the same location or beside the existing bridge.

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III. Preliminary Environmental Overview

K. Air Quality

This Project is in:

- Attainment Area     Non-Attainment Area or maintenance Area     PM 2.5 County

Knox County is attainment for all monitored air pollutants. This project is not anticipated to significantly change increase traffic or add additional lanes. Structures will be inspected for asbestos containing materials. Division for Air Quality requires advanced notification prior to demolition and removal of the bridge. Air quality during construction will be controlled with good construction practices.

L. Archeology/Historic Resources

- Known Archeological or Historic Resources are present

A phase I archaeological survey will determine cultural significance and if eligible sites are located in the project footprint and borrow area. Structures will be evaluated for historic inclusiveness.

M. Threatened and Endangered Species

Kentucky Division of Water has no waterways listed as sensitive in the area including Bull Run Creek. Best Management Practice's (BMP's) will be developed to adequately control erosion and run-off. USFWS has identified suitable habitat for threatened and endangered species in the project area. Current species listed for Knox County are *Myotis sodalis*, Indiana bat, *Alasmidonta atropurpurea*, Cumberland elktoe, *Phoxinus cumberlandensis*, blackside dace, and *Etheostoma susanae*, Cumberland darter.

Future review prior to construction will address the requirements of USFWS to prevent detriment to the protected species. A habitat assessment, biological assessment or mitigation measures will address potential impacts.

N. Hazardous Materials

- Potentially Contaminated Sites are present     Potential Bridge or Structure Demolition

Project will be reviewed for UST/Hazmat issues such as active or prior active fuel stations. Project does include a bridge that will be inspected for asbestos.

O. Permitting

Check all the may apply:

- Waters of the US     MS4 Area     Floodplain Impacts     Navigable Waters of the US Impacts

Are 401/404 Permits likely to be required?     Yes     No

- Impacts To:     Wetland     Stream/Lake/Pond     Special Use Waters  
 ACE LON     ACE NW     ACE IP     DOW IWQC

The USGS Quadrangle is Barbourville. Wetlands are not identified on the project. No listed sensitive streams are identified. A water of the United States (Bull Run and bridge 061B00071N @ (-83.939309 36.819384 Decimal Degrees) with impacts below ordinary high water will require coordination with the officers of the CORP and DOW. Construction activities may need a USACE 404 permit and a DOW 401 permit. Additionally, a surface water KYR 10 permit may be required for construction disturbance. Filling in a floodplain may require a permit.

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**P. Noise**

Are there existing or planned noise sensitive receptors adjacent to the proposed project?

Yes  No

Is this considered a "Type I Project" according to the [KYTC Noise Analysis and Abatement Policy](#)?

Yes  No

Noise issues will be temporary and limited to those associated with construction activity. It does appear there are noise receptors within 150 feet of the project and part of the project is changing the horizontal alignment by raising the roadway. Project will not increase capacity or through travel lanes.

**Q. Socioeconomic**

Check all that apply:

Low Income/Minority Populations Affected  Local Land Use Plan Available  Relocations

Relocations are not anticipated and construction is temporary, this project should not pose hardships to the community provided that traffic access is provided during construction. There appears to be no impacts to prime farmland.

**R. Section 4(f) or 6(f) Resources**

The following are present on the project:  Section 4(f) Resources  Section 6(f) Resources

Should structures be accepted as eligible for the National Register of Historic Places, they could be afforded protection under Section 4(f). KYTC has options to mitigate and avoid impacts to section 4(f) resources including a programmatic agreement for mitigating historic bridges, or using 'de minimus' guidance for properties with minor string takings.

**Anticipated Environmental Document: None (Completely State Funded)**

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**IV. Project Scoping**

Alternative 1:

Alternate 2:

Alternate 3:

**DRAFT**

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<b>Estimates</b>			
<b>Phase</b>			
Design			
R/W			
Utilites			
Const			
<b>Total:</b>	\$0.00	\$0.00	\$0.00
<b>Differenc</b>	<b>\$0.00</b>	<b>\$0.00</b>	

<b>V. Summary</b>